

TECHNICAL MEMORANDUM

DATE: December 1, 1989

TO: Vanessa Harris  
Marcia Kuehl  
Files

FROM: Steve Lombardo

US EPA RECORDS CENTER REGION 5



478663

SUBJECT: Himco Dump Site visit, November 9, 1989

Donohue conducted a site visit on November 9, 1989 to the Himco Dump in Elkhart, Indiana with representatives of the Indiana Department of Environmental Management (IDEM) and the potentially responsible parties (PRPs). The purpose of the site visit was to observe obvious surficial areas of environmental concern (e.g., stressed vegetation, stained soils, and uncontrolled dumping), determine site access points for field operations, and inspect the final cover for uncovered refuse and surface water drainage patterns. A completed site visit checklist is presented as Attachment 1. The PRPs present included Chuck Himes, landfill operator; R. Lennie Scott, Miles Labs; and Richard W. Paulen, of Barnes & Thornburg. The site covers an area of approximately 50 acres located northwest of the intersection of County 10 (Bristol Avenue) and Nappanee Street, Elkhart, Indiana. Land use adjacent to the Himco Dump includes: forested land and agriculture to the north; a single family residential neighborhood to the east; residential, agricultural and industrial use to the south, and agriculture to the west.

A brief history of the Himco Dump site was given by Chuck Himes, principal landfill operator during the site visit. According to Mr. Himes the area was initially a marsh and grassland. There was no liner, leachate or gas recovery system constructed for the landfill. Refuse was placed at ground surface across the site with the exception of trench filing in the eastern 1/4 of the site. A total of five trenches 10-15 feet deep, a truck width wide and 30 feet long, were excavated in this area. Paper refuse was reportedly dumped in these trenches and burned. The landfill had no borrow source but obtained sandy soil for daily cover from the gravel pit to the north, an excavated pond to the west, and essentially anywhere around the perimeter of the site where sand was available. It was reported that essentially 2/3 of the waste present in the dump was calcium sulfate from Miles Laboratories. As much as 360 tons/day were dumped over an unknown time duration. Other wastes accepted at the landfill included demolition/construction debris, industrial and hospital wastes and to a minor degree general household refuse. In 1977, the landfill was closed and covered. The cover was constructed of approximately one foot of sand overlying six inches of calcium sulfate.

During the site visit the cover of sand over calcium sulfate was observed to be 0 to 0.5 feet. The western half of the dump was used as cropland (for soybeans) up to one year ago. The eastern half of the site is covered by grassland with some tree stands. There is an access road into the site near the intersection of County 10 and Nappanee Street. The road is made of sand and may not handle heavy truck and automobile traffic. The use of 4-wheel drive vehicles and track rigs at the site is recommended. There is an abandoned gravel pit operation present in the northeast corner of the site. A truck scale, concrete structures and a utility pole are present in this area. The gravel pit itself is filled with water and a steep drop-off was observed. Some minor dumping into the gravel pit pond was noted. Another pond exists in the southwest corner of the site. It was reported that the owner of the property excavated this area to create a "fishing hole" which was then stocked with fish. It is not known if any biota still exist in this pond.

Surface water drainage across the Himco Dump site is probably radial due to the configuration of the landfill. The highest point of the landfill is probably near its geographic center at a reported height of 15 feet above ground surface sloping to a height of 0-5 feet around the dumps perimeter. Some erosional areas were noted around the site, some of them penetrating the calcium sulfate layer. Some paper and plastic refuse also lay uncovered in some areas. There were also some deep caverns noted in areas that were initially created by burrowing rodents. Wildlife actually observed at the site included a 4-point buck and various species of birds.

On-site and off-site monitoring wells installed by the United States Geological Survey (USGS) were also inspected by Donohue during the site visit. The wells were constructed of two-inch and four-inch ID PVC and had no protective casings. All wells checked had water in them and these water levels were recorded for future use. These wells were reported to have been constructed in the early 1980s and additional information about the well construction will be obtained from the USGS. An initial walk-through of the site was conducted with atmospheric monitoring equipment (an HNu, lumidor, and geiger counter). Compounds monitored included: VOCs, hydrogen sulfide, methane, X and gamma radiation. No readings above background were detected on any of the instruments. However, olfactory detection of "landfill gas" did occur intermittently across the dump site.

In general, access to the site from the southeast road and gate near utilities, would probably be an acceptable area to set-up a field trailer and decontamination area.

ARCS/O/M/BO2

SITE VISIT CHECKLIST

Site Name: Himco Dump

Location: Elkhart, Indiana

Project No.: 20026.001

Date(s): November 9, 1989

Arrival/Departure Time: 8:35 A.M. - 1500

Weather: SW 13 mph, 40°F, cloudy, 79% humidity

Donohue Personnel: Steve Lombardo  
Vanessa Harris  
Marcia Kuehl

IDEM: Doug Fisher  
Steve Myers  
Wayne Evans

PRPs: Chuck Himes  
R. Lennie Scott - Miles  
Richard W. Paulen - Barnes & Thornburg

## SITE VISIT CHECKLIST

### Utilities

- Mark locations on site map and record name of utilities if possible: None
- Locate overhead power lines: Near road only - County 10 & Nappanee St.
- Look for power or gas hookup on sides of buildings suggesting underground utilities: Non-functional
- Power hookup for job trailer: Near road
- Private water wells/municipal water lines: None
- Septic tanks (look for cover): None

### Site Access

- Access roads suitable to heavy traffic: Parking area off of street in front of site.
- Locate culverts: None on-site
- Is site fenced in, condition, number of access points (locations), locked gates, chain link, height: One unreadable warning sign; locked entry gate (Travelcraft has key)
- Road type (black top, natural): Road mostly medium sand
- Parking lots (location): By entrance
- Possible location for job trailer: Clearing near site entrance close to utility poles.

### Buildings:

- Number of building and construction type: One - concrete slab
- If used, what for? Abandoned sand and gravel scale
- Locked/unlocked: Unlocked
- General condition: Poor
- Safe to enter - hazards known/unknown: Unknown

- Access for rig, ceiling clearance: N/A
- Type of floor: Concrete
- Security in area, "Type of Neighborhood": Residential; shell casings found on-site.

#### Site Layout

- Percentage of area covered by vegetation/trees: Approximately 1/2 of old landfill used for crops (soybeans). Most of site covered by grasses and tree stands.
- Stressed vegetation: Fall conditions, difficult to tell.
- Disturbed or discolored soil - vegetated, potential source, dimensions, recent/past, vehicle tracks: Discolored soil - observed white  $\text{CaSO}_4$  at surface.
- Mounded or piled soils suggesting dumping: Tires, debris, concrete, asphalt, tree stumps, sheet metal.
- Depressions or hummocky soil suggesting buried debris, approximate dimensions: Near road bed, piles of sand and gravel.
- Storage Tanks:
  - ° One empty underground storage tank at surface
- Monitoring Wells:
  - ° Protective casings, locked: None
  - ° Well identification labels: See inside cap, some on pipe
  - ° Well construction type PVC, stainless, galvanized: PVC
  - ° Well casing bent: Several wells out of plumb
  - ° Depth to water, total depth: See attached sheet
  - ° Air monitoring: No hits
  - ° Silt in well: None noticed
  - ° Approximate age of well: Approx. 10 years old
  - ° Measure distance and heading to nearby permanent feature: See map
  - ° Abandoned boreholes - grouted, open, diameter: None
- Demolition debris:
  - ° Wood posts, stone, metal roofing, concrete slab - Travelcraft

- Landfills/solid waste:
  - ° Approximate dimensions: Approx. 40 acres
  - ° Cap material: CaSO<sub>4</sub> and sand
  - ° Surface drainage: Poor
  - ° Leachate seeps - color, odor, discharge rate: None found
  - ° Methane bubbles in water puddles: None found
  - ° Vehicle tracks: Some on site roads
  - ° Waste visible at surface - type: Plastic, metal, paper
- Wetland, ponds, lakes:
  - ° Gravel pit pond "fishing hole" in southwest corner
  - ° Water level fluctuations (look at shoreline piers, bridges)
  - ° Water color, odor: Clear water, no odor
  - ° Bottom type - muck, sand, gravel, discoloration: Sand bottom
  - ° Aquatic life: None observed
  - ° Shoreline vegetation: Trees and grasses
  - ° Nearshore depth: Deep, fast drop off
  - ° Stream flow in/out: None observed
  - ° Bank seepage: None observed
- Rivers, stream, creeks: None
- Topography and drainage:
  - ° Surface water flow direction: Variable
  - ° Standing water, mud cracks: None
  - ° Drainage ditch erosion: Some erosional runoff areas noted
- Noise Pollution - source, type, hours: None
- Dust/smoke - source, type: None
- Unusual or noxious odors - source, type: On cover of fill, landfill gas smell
- Railroad spurs: Tracks abandoned immediately south of landfill
- Local land use:
  - ° Industrial-Miles Lab (contamination sources): South of site Morse Industries metal fabricators
  - ° Agricultural (pesticides, herbicides), residential: Residential trailer park

#### Sampling Locations

#### Drilling

- Accessibility to drilling locations: Very sandy sod/soil, mushy/mossy cover
  - ° ATV or truck-mounted drill rig: Most likely
  - ° Trees, brush, swamps: Brush heavy at edges



- Decontamination pad and location:

° Proximity to storm sewer or sewer lines: None

- Soil type: sand and gravel

Grid Sampling: Sandy soil, easy to sample

Soil Gas Sampling

- Can ground be penetrated with steel rod: Easily

- Soil type: Sand

- Gas migration: Smell H<sub>2</sub>S/CH<sub>4</sub>

Health and Safety

- Trip hazards

ARCS/O/MISC/AW1



PHOTO LOG OF THE HIMCO SITE VISIT - NOVEMBER 9, 1989

PHOTOS TAKEN BY: LOMBARDO, HARRIS, KUEHL

- 1 Entrance gate (locking) and access road to site
- 2 Berm adjacent to entrance gate
- 3 Concrete debris near gate
- 4 Asphalt piled alongside access road
- 5 Concrete piled alongside access road
- 6 Concrete piled alongside access road
- 7 More asphalt piled alongside access road
- 8 More asphalt piled alongside access road
- 9 Concrete debris
- 10 Sheet metal debris
- 11 Area of poor cover, garbage exposed
- 12 Area of sparse vegetation
- 13 Area of pour cover, calcium sulfate @ surface
- 14 Remnants of a gate near the gravel pit pond
- 15 View of the gravel pit pond
- 16 Concrete structure from past mining operations
- 17 Concrete shack and utility pole from mining operations
- 18 View of the gravel pit pond
- 19 View of the gravel pit pond
- 20 Landfill cover looking south
- 21 Landfill cover looking east
- 22 Landfill cover looking west
- 23 Landfill cover looking west
- 24 Landfill cover looking west
- 25 Dumping in gravel pit pond
- 26 Approximately 1 inch sand cover over calcium sulfate
- 27 Area of poor final cover
- 28 Remnants of truck scale (?) near gravel pit
- 29 View north of gravel pit pond
- 30 Concrete building and utility pole near gravel pit
- 31 USGS well nest south of landfill
- 32 Testing USGS well for VOCs
- 33 Testing USGS well for VOCs
- 34 USGS well nest south of landfill
- 35 USGS flush well east of landfill
- 36 Checking USGS well for VOCs
- 37 Moss growing on calcium sulfate crystals
- 38 Wetland vegetation and forest at north edge of fill
- 39 Drainage of the landfill cover
- 40 Calcium sulfate adjacent to gopher hole
- 41 Landfill cover vegetation looking south
- 42 A cavern formed by a burrowing animal and rainwater
- 43 Western side of landfill, remnants of row crops
- 44 Calcium sulfate on surface of cover

- 45 Sparse vegetation on cover looking south
- 46 Calcium sulfate at surface in a mound
- 47 Tree stand on landfill cover
- 48 Tree stand on landfill cover
- 49 Landfill cover well vegetated looking west
- 50 Remnants of fenceline (north-south) in center of landfill
- 51 Remnants of row crops, west side of fill
- 52 Drainage area on landfill cover
- 53 Drainage area on landfill cover
- 54 Moss growing on calcium sulfate crystals
- 55 Berm with calcium sulfate on southern edge of landfill
- 56 Bottles, cans, sheet metal, misc. debris southern edge of landfill
- 57 Underground storage tank disposed of on landfill cover
- 58 Residences near southwest corner of landfill
- 59 Drainage area with calcium sulfate exposed
- 60 Drainage area with calcium sulfate exposed
- 61 Landfill cover looking east
- 62 Landfill cover looking east
- 63 Area of poor cover and sparse vegetation
- 64 Area of poor cover and sparse vegetation
- 65 Wetland area adjacent to western edge of landfill
- 66 Wetland area adjacent to western edge of landfill
- 67 Wetland area adjacent to western edge of landfill
- 68 Wetland area adjacent to western edge of landfill

ARCS/O/MI/AW7





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A photograph of a building with a corrugated metal roof, heavily obscured by dense, dry brush and bare trees. The scene is overgrown and appears to be in a rural or wooded area. A small white label with the number '10' is in the bottom left corner.

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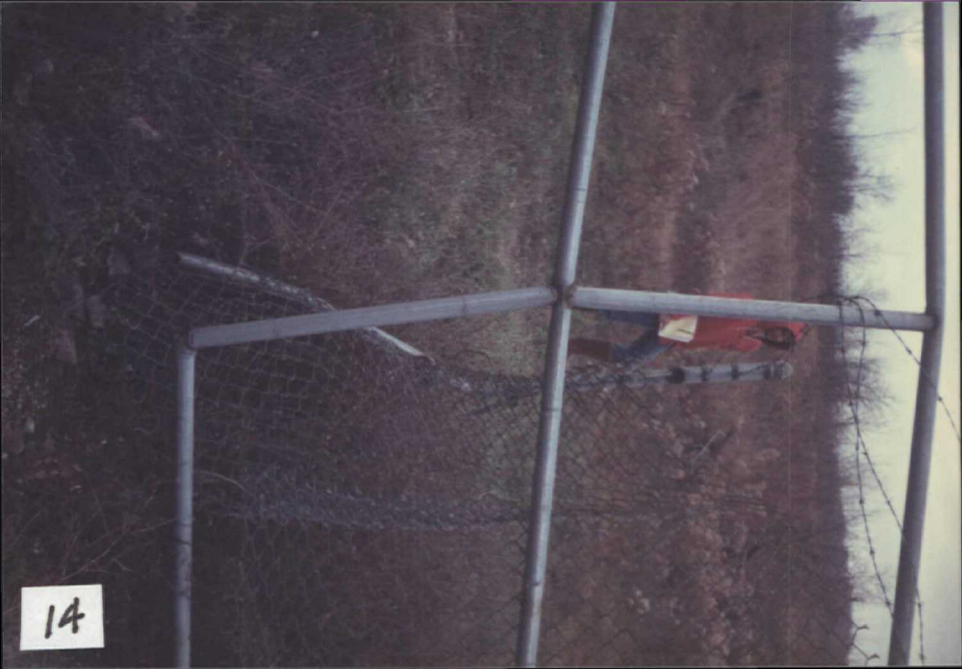


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A photograph of a body of water, likely a lake or river, with a blue-green hue. The water surface is covered in gentle ripples. In the foreground, there are some dry, brownish reeds or grasses on the left and right sides. A small white label with the number '25' is positioned in the bottom left corner. The water appears slightly murky near the shore, revealing some dark, rocky or silty patches.

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A photograph of a dirt and gravel surface. Two white, elongated objects, possibly pieces of bone or debris, are visible. One is in the center-left, and the other is to its right. The ground is covered in brown soil, small stones, and some dry grass. A white label with the number '26' is in the bottom-left corner.

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OBSERVATION WELL  
FOR MEASUREMENT OF  
GROUND WATER LEVELS  
INSTALLED AND MAINTAINED BY  
U. S. GEOLOGICAL SURVEY IN  
COOPERATION WITH REGIONAL  
OFFICE OF THE ARMY CORPS OF ENGINEERS

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OBSERVATION WELL  
FOR MEASUREMENT OF  
GROUND WATER LEVELS  
OPERATED AND MAINTAINED BY  
U.S. GEOLOGICAL SURVEY IN  
COOPERATION WITH INDIANA  
DEPT. OF NATURAL RESOURCES

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A photograph of a dry, open landscape. The foreground is filled with tall, dry, brown grasses and some bare, dark branches on the left. A dirt path or clearing runs through the middle ground. The background shows a line of trees and a hillside under a dark sky. A small white label with the number '45' is in the bottom left corner.

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A photograph of a forest floor covered in brown, fallen leaves and twigs. Two tree trunks are visible: one on the left and one on the right. A bright, circular patch of light illuminates the ground between the two trunks, revealing a layer of green moss and some small plants. In the bottom left corner, there is a small white rectangular label with the number '55' written on it in black.

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A photograph of a ground surface covered with moss and dry, brownish vegetation. A prominent, irregularly shaped patch of bright white material, possibly a mineral deposit or a piece of paper, is visible in the center. The surrounding area is covered in green moss and dry, needle-like plants. In the bottom left corner, there is a small white rectangular label with the number '59' written on it in black ink.

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A photograph of a field with a muddy area. The foreground is dominated by a large, dark, and textured patch of mud or silt, possibly a dry pond or a heavily eroded area. The mud has a cracked and uneven surface. In the background, there is a field of tall, dry, brown grasses. The far edge of the image shows a dark line of trees. In the bottom left corner, there is a small white rectangular label with the number '65' written on it in black ink.

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